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ABSTRACT

Two studies conducted at the University of Maryland during the 1973-74 academic year evaluated the efficacy of programs designed to meet the needs of women and sought to determine whether the provision of a supportive learning environment, rather than individual or group counseling, would influence women's life styles. In the first study 36 experimental subjects took a class in which they undertook four projects: an academic skills project; a career exploration project; a campus, community or women's resources project; and a personal class journal. The projects were designed to promote an active search for information that would be helpful in setting and reaching goals. The 36 experimental subjects were pretested and posttested using the following instruments: Vocational Decision-Making Checklist, the Self-Concept as Learner Scale, the Attitude Toward Women Scale, and Form E of the Dogmatism Scale. In the second study 34 experimental subjects attended weekly sessions organized into large didactic class activities and into three small discussion groups. Information was provided on vocational planning, employment trends, educational opportunities, decision-making, assertiveness training, and personal awareness training. The two programs did affect certain vocational and psychological attitudes. In the first experiment subjects exhibited greater maturity in vocational decision-making, and in the second experiment, subjects' self-concepts were enhanced. (SW)

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# THE EFFICACY OF SUPPORTIVE LEARNING ENVIRONMENTS FOR RETURNING WOMEN: AN EMPIRICAL EVALUATION

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## SUMMARY

Two studies are presented which evaluate the efficacy of programs designed to meet the needs of today's changing women. The studies sought to determine if changes which would influence women's life styles could occur by providing a supportive learning environment, rather than through traditional individual or group counseling. Pre-post experimental-control group designs were employed for both studies. One experiment examined the effects of the treatment in a university setting, with the outcome measures being vocational decision-making attitudes, learning attitudes, attitudes toward women, and receptivity to new information. The second study examined treatment effects in a community setting, with the measures being vocational decision-making, self concept, and attitudes toward women. Results suggest that the two programs did affect certain vocational and psychological attitudes. Specifically, in Experiment 1 subjects exhibited greater maturity in vocational decision-making, while in Experiment 2 self concept was enhanced.

## The Efficacy of Supportive Learning Environments for Returning Women: An Empirical Evaluation

Today's woman is increasingly faced with problems created by her changing role within the family, the community, and society as a whole (Bernard, 1972; Self, Note 1). Although there have been innumerable programs offered for women by community agencies and institutions of higher education, there is a paucity of research in program outcome and effectiveness (Birk & Tanney, 1976; Daniels, 1975). This paper attempts to examine critically the effectiveness of two programs offered to meet the needs of today's changing woman. One was a university-based program, the other, a community agency-based program.

The major purpose of the following two studies was to determine if changes, which would influence women's life styles, could occur by providing a supportive learning environment, rather than through traditional one-to-one or group therapeutic counseling. Chesler (1972) suggests that traditional modes of psychotherapy may not be the most appropriate or effective means for allowing women to express their distress and implement change in their lives. The supportive learning environment was designed to allow for sharing concerns, improving interpersonal relationships and goal-setting. Within the group situation, information on vocational and educational alternatives was provided so that women would be able to develop and implement new goals. Encouragement for new behaviors was provided by group members and leaders. Informal evaluations suggest that this type of supportive group is effective for adult women (Manis & Mochizuki, 1972; Maslin, Note 2), but the authors know of no formal research on the topic.

## Experiment 1

As an increasing number of adult women sought counseling and study skills assistance at the University of Maryland Counseling Center, it became apparent that these women had needs that were not being met by the existing University programs. In response to these needs, a course was designed to provide supportive services and academic information to the enlarging number of women who were returning to the University after some lapse in their educational process. This experiment was designed to test the effectiveness of this type of course in modifying women's vocational and psychological attitudes in such a way that their career and personal development would be enhanced. More specifically, the purpose of this experiment was to determine if changes would occur in vocational decision-making, learning attitudes, attitudes toward women, and receptivity to new information, as a result of the course.

### Method

Subjects: A computer program was written which identified entering women students for the summer and fall of 1973 who were over 25 years old. These women were sent letters inviting them to register for the course entitled "How to Succeed in College" to be given in the summer and fall of 1973. In addition, campus and area newspapers carried publicity about the course.

The women who enrolled in this course ranged in age from 20 to 60 years old, with an average age of 36 years. Typically, they were married, mothers of two school-age children, and the wives of semi-professional men. They had worked for an average of four years and had taken some college courses. They had been away from school for 2-30 years. Three of the women had

bachelor's degrees. A total of 46 students completed the course and are included in this study.

Instruments: Four instruments were administered to subjects in the study. They were the Vocational Decision-Making Checklist (Harren, Note 3); the Self-Concept as Learner Scale (Waetjen, Note 4); the Attitude Toward Women Scale (Spence and Helmreich, 1972); and Form E of the Dogmatism Scale (Rokeach, 1960).

The Vocational Decision-Making Checklist was selected to measure maturity of vocational decision-making. This checklist is based on the Tiedeman Vocational Decision-Making model (Tiedeman, 1961; Tiedeman & O'Hara, 1963). This model posits that vocational decision-making is a four stage process: the Exploration stage, the Crystallization stage, the Choice stage, and the Clarification stage. The four stages represent increasing degrees of vocational maturity.

In the Vocational Decision-Making Checklist, four stages of decision-making are each applied to two areas involving vocationally relevant decisions: choice of a major and choice of an occupation. This checklist provides three scores, two sub-scale scores (major and Occupation) and a total score. Harren (Note 5) has recently summarized a large number of studies demonstrating sound reliability of the Checklist, and supporting its discriminant, convergent and construct validity. Most notably, the Checklist appears quite sensitive to the effects of treatments aimed at enhancing vocational maturity.

The Self-Concept as Learner Scale was used to measure changes in learning attitudes. This scale is divided into four components which constitute dimensions of one's self-concept as a learner. The four components or sub-scales are: Motivation, Task Orientation, Problem Solving Ability, and Class Membership. Items within each component are judged in terms of the way an adequate

learner would respond. While this instrument is yet to be soundly validated, three investigations have provided support for its reliability, e.g., stability coefficient for total test was .90 after 35 days with normal subjects (Waetjen, Note 4).

The Attitudes Toward Women Scale purports to measure attitudes toward the rights and roles of women in contemporary society in the areas of vocational, educational, and intellectual roles of women; freedom and independence; dating, courtship, and etiquette; sexual behavior and marital responsibilities and obligation. A low score reflects a more traditional, conservative attitude and a high score reflects a more liberal, pro-feminist attitude toward women's rights and roles (Spence & Helmreich, 1972). Collins research (Note 6) suggests that this scale is highly reliable (retest reliability = .95 over one week), and possesses sound criterion related validity. Also, Collins found that the Scale can tap change produced by short-term treatment.

The Dogmatism Scale reflects Rokeach's (1960) theory of an individual's belief-disbelief system in which the cognitive structure of closed-minded (dogmatic) persons precludes a facility to change. This instrument has yielded impressive validity and reliability data across a wide variety of situations (Vacchiano, Strauss & Hochman, 1969). Ehrlich and Lee's (1969) extensive review suggests that the Scale does tap receptivity to new information, and it was used in the present experiment for that purpose.

Intercorrelation of all dependent measures from their first administration revealed a number of statistically significant but modest ($r < .40$) relationships. Those that were larger than .40 were: Self Concept or Learner - Task Orientation with Problem-Solving Ability ($r = .58$);

Vocational Decision-Making Checklist subscale with each other and the Total Score (r's = .75-.94); the Attitudes Toward Women Scale with the Vocational Decision-Making Checklist subscales and total score (r's = .44-.51).

Procedure: A pre-post experimental-control group design (Campbell and Stanley, 1963) was employed. The experimental group (N = 36) was composed of 18 students who began treatment in the Summer of 1973 and 18 students who began treatment in the Fall of 1973. The control group (N = 12) was composed of students for whom space was not available in the summer treatment group. These 12 women were invited and chose to become a part of the Fall treatment group.

The experimental group was pre-tested on the day treatment began and post-tested on the day treatment ended. The control group (N = 12) was given a pre-wait battery of tests during the summer. They were pre-tested five weeks later when they began treatment (N = 10) as part of the Fall treatment group. This "Pre-test" served as the outcome measure for the control group. The control group completed the post-testing at the same time as the Fall group.

Treatment:[2] Eighteen students met once a week for three hours for five weeks in the summer session. Two classes of students (total = 28, 18 experiments and 10 controls) met once a week for two hours for 15 weeks in the fall semester. Resource people from campus were guest discussion leaders. Students were required to do four projects for the course: (a) an academic skills project, (b) a career exploration project, (c) a campus, community or women's resources project, and (d) a personal class journal. The purposes of these projects were to have students actively search for information which would be helpful in setting and reaching their goals.

Small-group class discussions focused on personal and emotional concerns, as well as vocational and educational needs. Academic credit (one credit) was granted for the course. The instructors, (two of the authors), were a study skills counselor and a graduate student in counseling.

## Results and Discussion

The first step in the analysis was to determine if the experimental group differed from the control group before treatment. Two tailed t-tests were run comparing the experimental pre-test and the control pre-wait test scores. Alpha was set at .10 for these analyses.

The experimental and control groups did differ initially on the five of the nine variables studied. These differences are shown in Table 1.

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Insert Table 1 About Here

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Analyses of covariance were conducted for the five criterion measures on which initial status differed. Scores on the initial measures were employed as the covariates. T-tests were run on the post-test scores when the experimental and control groups did not differ initially. Summaries are presented in Table 2 for all nine variables of the experimental post-test mean scores and the control group pre-test mean scores (which were scores on the tests given 5 weeks following the pre-wait battery of tests).

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Insert Table 2 About Here

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The Analysis suggests that the course had a positive effect on vocational development. On the other hand, neither attitudes toward women ($p = .09$), dogmatism, nor self-concept as learner was altered by the course experience. (Because t tests indicated that the 5 and 15 week treatments did not approach

differing significantly, either before or after the program, these groups were combined in the statistical analysis).

While the reliability of change scores is often questionable, it should be at least suggestive to examine them. Change scores were analyzed for the control subjects (n = 8) who took all three batteries as follows: a pre-wait testing (when control subjects were waiting for treatment), a pre-test (when they began treatment 5 weeks later), and a post-test (after they received treatment). A repeated measures analyses of variance was performed, the independent variable being "Time of Testing" (pre-wait, pre-test, post-test). Results are presented in Table 3.

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Insert Table 3 About Here

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While caution must be exercised in interpreting the change scores, a consistent picture did appear to emerge. Scores on the Vocational Decision-Making Checklist move in the direction consonant with the experimental-control comparisons. That is, the differences between pre-wait and pre-treatment scores were miniscule and did not approach significance. This suggests that time alone does not affect Vocational Decision-Making Checklist scores. Methodologically, it suggests that pretesting is not a threat to validity (Campbell and Stanley, 1963). The Vocational Decision-Making Checklist scores following treatment, however, do increase significantly. Thus, the treatment effects we identified in the between-subjects analysis could not be just a function of having a noncomparable control group.

It appears, following Harren's norms (Harren, 1972), that treated subjects move from the stage of "Crystallization" (progress toward, but not attainment of, choice) to the stage of "Choice" (definite commitment to a

goal), while control subjects do not. Following treatment, however, the control subjects are very close to the Choice stage, although they do not quite attain it.

## Experiment 2

The purpose of this experiment was to test the effectiveness of a supportive learning program for adult women taking the first steps in exploring new vocational and psychological goals. The specific aim of this program was to modify vocational and psychological attitudes of women in such a way that career or personal development would be enhanced. This program differed from the program in Experiment 1 in that this one was conducted in a family-oriented community agency. The program was jointly sponsored by Montgomery College of Rockville, Maryland and the Jewish Community Center of Rockville. Developers of the program were a doctoral student in higher education and a doctoral student in human development. Specifically, the purpose of the experiment was to determine if the treatment provided would influence vocational decision-making, attitudes toward women, and self acceptance. Additionally, we sought to determine if the influence of treatment on these variables was moderated by subjects' initial level of open- vs. closed-mindedness (dogmatism).

### Method

Subjects: Subjects were recruited by direct mail to members of the Jewish Community Center and to Montgomery College's mailing list. Press releases in local newspapers and spot announcements on the radio were used to publicize availability.

The Subjects ranged in age from 23 to 55 years old with an average age of 37. Typically, they were married or previously married to either professional or semi-professional men. Almost all of the women had children, the average

number of children was three. Most of their children were of school age. All but two of the women had high school degrees, about 40% had bachelors degrees, and a few had some graduate and professional training. The years away from school ranged from three years to 32 years with an average of 15.5 years. The reason most often given for enrollment was the need to set vocational goals. A total of 66 women enrolled for this course.

Instruments: The instruments used were the Vocational Decision-Making Checklist (Harren, Note 3), the Attitudes Toward Women Scale (Spence and Helmreich, 1972), the Dogmatism Scale (Form E; Rokeach, 1960), and the Index of Adjustment and Values (Bills, Vance & McLean, 1951).

In this experiment, the Dogmatism Scale was used as a moderator. It was thought that open vs. closed-minedness of subjects might influence the extent to which they profited from treatment, such that the more open-minded the subject, the greater the gain she would manifest during treatment.

The Inventory of Attitudes and Values was substituted for the Self-Concept as Learner Scale, since the former instrument measures as broader view of self-concept. The Index of Adjustment and Values was designed to measure a person's acceptance of self. The difference between the self-concept score and the ideal self score yields a self/ideal-self discrepancy score from which self-satisfaction is inferred. Test-retest reliability on discrepancy scores is .87 after six weeks and .61 after six months; validity data appear quite acceptable (Wylie, 1974), including those related to the effects of short-term counseling (Keilson, Note 7).

Intercorrelations of all dependent measures from this first administration (pre-tests) revealed that the two subscales of the Vocational Decision-Making Checklist correlated significantly with the total score (r's = .80 for the Major subscale and .65 for the Occupational subscale). The subscales,

however, did not correlate with each other (r = .10). None of the other inter-correlations approached statistical significance.

Procedure: Thirty-four women began treatment in the Fall of 1973 and twenty-one women began the program in the Spring of 1974. Eleven women, who were on a waiting list developed from the Fall program, served as a control group. These 11 women then began treatment in the Spring of 1974 along with the 20 experimental group subjects. Thus, the experimental group was composed of 55 women, 34 women who were enrolled in the Fall of 1973 and 21 women who were enrolled in the Spring of 1974.

The experimental group was pre-tested on the day treatment began. The treatment lasted for eight weeks. They were post-tested on the day treatment ended (post-test I) and one month following completion of treatment (post-test II) for both the Fall and Spring treatment groups. The control group was given a pre-wait battery of tests when the Fall group began treatment. They were "pre-tested" two months later when they began treatment as part of the Spring treatment group. They completed the post-testing and delayed post-testing at the same time as the Spring group. All delayed post tests were mailed to subjects one month after treatment, and mailings were followed by two phone calls at two week intervals for non-returners.

This study had a high mortality rate especially for the delayed post-testing. Only seven of the 11 controls completed all four testings (pre-wait, pre-test, post test I, post-test II), and only 21 of the 55 experimental subjects completed all their three testings (pre-test, post-test, delayed post-test II).

Treatment: Weekly sessions were organized into large didactic class activities and into three small discussion groups of between seven and 11

participants each. The leaders of the small groups were the developers of the program and a counselor from Montgomery College.

The program consisted of providing information on vocational planning, employment trends, educational opportunities, decision-making, assertiveness training and personal awareness training. The small groups provided ample opportunity for self-analysis, risk-taking and sharing of personal-emotional concerns.

## Results and Discussion

Comparisons were made of the experimental group pre-test scores with the control group pre-wait scores to test for initial differences. Such differences emerged on only one of the six variables, the Index of Adjustment and Values (experimental $\bar{X} = 41.0$, control $\bar{X} = 55.6$, $t = 2.31$, $p < .05$). To control for pre-treatment differences in that variable, an analysis of covariance design was employed, with post I and II scores as the criteria (pre-test scores for the controls) and pre-test scores as the covariates (pre-wait for the controls). Analyses of variance were used in the post tests (pre-tests for the controls) on the remaining variables.

Significant differences between the experimental and control groups emerged for both the immediate and delayed post tests on the Index Adjustment and Values (experimental vs. control $\bar{X}$'s = 33.8 vs. 69.8, $F = 31.6$, $p$ .001 for Post-test I and 28.6 vs. 69.6, $F = 14.62$, $p < .001$ for Post test II). Also, the Vocational Decision Making Checklist-Major subscale manifested a trend toward significance on post-test I ($p = .14$), and obtained significance in the delayed post test (experimental vs. control $\bar{X}$'s = 22.3 vs. 17.4, $F = 4.12$, $p$ <.05).

These analyses suggest that the treatment had a powerful effect on self-concept, both right after treatment and one month later. The discrepancy

between subjects' self concepts and what they would like to be appeared markedly reduced by the supportive learning environment. Additionally, as described in the above paragraph, a sleeper effect appeared on the Vocational Decision Making Checklist - Major subscale. It seems plausible that the subset of women in our sample who were wishing to return to college were most affected in that area. (Post-treatment questionnaire data were supportive of this hypothesis.)

To determine if within-subject patterns supported the above findings, we conducted two repeated measure analyses of variance. Scores of control subjects ($n = 7$) who completed all four testings (pre-wait, pre-test, post I, post II) were examined in one analysis, and scores of experimental group subjects ($n = 21$) who completed all three experimental group testings were studied in a second analysis.

The amount of change for control subjects from the pre-wait to the pre-test period was miniscule and non-significant. These subjects, as well as those in the experimental group, however, manifested a clear and significant change on both the immediate and delayed post-tests for the Index of Adjustment and Values and the Vocational Decision-Making Checklist. Thus, our within-subjects analyses were strongly confirmatory of the between-subjects comparison. This confirmation precludes explanation of experimental-control group post-treatment differences on the basic initial differences between the groups. The control group changed in the same manner as the experimental group when the former received treatment.

Significant change occurred from the pre- to the two post-tests for experimental group subjects in the Attitude Toward Women Scale ($p < .01$). Since that outcome was not supported by the between-subjects comparison, however, the most

tenable conclusion seems to be that the outcome was a function of some sort of confounding in our data, e.g., selection biases due to experimental mortality. At the same time, it should be noted that the data from Experiment I also exhibited a trend toward an effect on the Attitudes Toward Women Scale.

A final question centered on whether subjects' levels of open vs. closed-mindedness might moderate the effects of treatment. Scores on Rokeach's Dogmatism Scale were correlated with post-test I and II scores for subjects in the experimental group. Scores on the pre-test were held constant statistically through partial correlations. This same comparison was made for control subjects, using pre-wait and pre-test (post-wait) scores. In no case did dogmatism scores approach correlating significantly with the criterion measures. Thus, it seems clear that the open vs. closed-mindedness construct does not moderate benefit from treatment, at least in a clearcut, linear fashion.

## Discussion of Experiments 1 & 2

The results suggest that both programs had desirable effects on participants. Specifically, in Experiment 1 the most salient effect was on the maturity of women's vocational decision making. The most pronounced effect in Experiment 2 was on self-concept. Additional outcome trends did emerge, but given some of the methodological limitations of these experiments, it seems most appropriate to draw conclusions only about the most clearcut findings.

An important question may be raised about the apparently greater impact in Experiment 1 than 2 on vocational decision-making. One reasonable explanation resides in differences in the type of women in the two programs. Experiment 1 was conducted in a university setting, and women who wanted or were more receptive to an experience fostering vocational maturity may have gravitated toward such a setting. It likewise seems plausible that those wanting a personal growth experience chose a community setting, as in Experiment 2,

and, therefore, self-concept was quite influenced. Differences in demographic data at least partially support this interpretation. It may be recalled that the women in Experiment 2 had an appreciably higher level of educational attainment than those in Experiment 1. Thus, they were possibly less motivated, as a group, to pursue new educational-vocational goals but were, rather, more concerned with their own personal growth needs. An alternative explanation resides in actual treatment differences between the two programs. The women in Experiment 1, but not those in the second study, were required to complete a career exploration project. This project forced subjects to search actively for vocational goals and probably helped them clarify goals.

In searching for factors within the programs that may have been influential, at least one variable deserves to be underscored. Role models were available in both programs, as the leaders had previously made changes in their own life roles. Thus, they were seen by subjects as women who had themselves set new career goals and made adjustments in life styles. Brooks (1976), in her review of literature on returning women, notes the importance of exposure of these women to role compromise models, and research by Pincus, Radding & Lawrence (1974) indicates that few returning women who seek counseling have had such models. While research is required to draw firm conclusions, in our view the visibility of role models in both our studies was an important source of reinforcement for change.

While trends appeared on the Attitudes Toward Women Scale in the direction of a more liberal view of women's roles, a clearcut pattern did not emerge. The most parsimonious conclusion is that programs such as ours have a weak effect, if any, on such attitudes. At the same time, our subjects' scores were relatively high (liberal) to begin with, and Collins (1973) has found that

the Scale does have a ceiling effect problem. Future research might consider the use of Collins' revision, which was constructed to minimize this problem.

The fact that both programs produced change in the desired direction on at least one dimension appears to illustrate the practicality of offering supportive educational programs for women who are thinking of making changes in life style. These results are consistent with Manis and Mochizuki's (1972) and Maslin's (1975) informal findings, and with the argument (Chesler, 1972) that treatment modes other than traditional therapeutic activities may be effective in implementing change.

The present research was encumbered by all of the usual problems of field experimentation, e.g., agency and practitioner reluctance with control groups, experimental mortality, lack of precise controls. At the same time, this sort of research is badly needed, at a minimum as a scientific check on the plethora of treatment programs being proposed in the domain of returning or re-entry women. Finally, Kimball and Gelso (1974) have noted the increased attention in the counseling literature to client (and counselor) variables that moderate treatment outcomes. In the current research, client dogmatism did not affect outcome. Since it is certain, however, that not all women profit equally from such programs, the search for client moderators needs to continue and become part of the research on programs for returning women.

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## Footnotes

[2] More extensive descriptions of the treatment procedures in Experiments 1 and 2 are available gratis from the second author.

Table 1

Experimental Group Pre-test and Control Group Pre-wait

Scores on Variables Which Differed Significantly.

| Variable | Experimental Pre-test (n=36) | | Control Pre-wait (n=12) | | t-test |
|---|---|---|---|---|---|
| | $\bar{X}$ | SD | $\bar{X}$ | SD | t |
| Self Concept as Learner-Class Membership Scale | 42.1 | 4.28 | 46.1 | 4.23 | 2.61** |
| Vocational Decision Making-Major | 21.0 | 5.31 | 16.3 | 4.71 | 2.56** |
| Vocational Decision Making-Occupation | 22.4 | 4.27 | 16.9 | 5.81 | 3.27*** |
| Vocational Decision Making-Total | 43.3 | 8.90 | 33.2 | 9.70 | 3.13*** |
| Attitude Toward Women | 116.4 | 24.89 | 101.4 | 19.32 | 1.85* |

*p < .10

**p < .05

***p < .01

Table 2

Comparison of Experimental Group Post-test and Control Group Pre-test Scores for All Variables Studied[a]

| Variable | Experimental Post-test (N = 36) $\bar{X}$ | SD | Control Pre-test (N = 10) $\bar{X}$ | SD | t-test or F-test | p |
|---|---|---|---|---|---|---|
| Dogmatism | 131.3 | 34.12 | 115.1 | 24.79 | t= 1.28 | NS |
| Self-Concept As Learner Motivation Scale | 47.1 | 3.44 | 45.3 | 2.12 | t= 1.41 | NS |
| SLC-Task Orientation Scale | 48.7 | 6.97 | 49.1 | 3.21 | t= 0.18 | NS |
| SLC-Problem-Solving or Intellectual Ability Scale | 40.5 | 6.46 | 38.6 | 3.40 | t= 0.83 | NS |
| SLC-Class Membership Scale | 43.1 | 5.43 | 40.6 | 9.81 | F= 1.26[a] | NS |
| Vocational Development Checklist Major | 26.0 | 4.40 | 17.7 | 5.00 | F=10.82 | .003 |
| VDC-Occupation | 26.3 | 4.89 | 16.3 | 4.22 | F=10.96 | .002 |
| VDC-Total | 52.5 | 7.19 | 33.8 | 8.14 | F=20.69 | .001 |
| Attitude Toward Women | 125.8 | 25.00 | 102.5 | 20.93 | F= 3.02 | .09 |

[a] Post-test means of experimentals and pre-test means of controls are unadjusted for initial differences in this table.

Table 3

Analysis of Change Scores in Control Group Subjects

| Variable | Time of Testing: Pre-Wait $\bar{X}$ | Pre-Wait SD | Pre-Test $\bar{X}$ | Pre-Test SD | Post-Test $\bar{X}$ | Post-Test SD | F | P |
|---|---|---|---|---|---|---|---|---|
| Dogmatism | 131.0 | 13.55 | 130.0 | 15.25 | 142.3 | 11.94 | 2.33 | NS |
| SLC-Motivation | 46.1 | 2.73 | 45.4 | 3.16 | 44.9 | 3.89 | .66 | NS |
| SLC-Task Orientation | 46.7 | 4.18 | 48.7 | 2.66 | 46.3 | 2.73 | 1.01 | NS |
| SLC-Problem-Solving or Ability | 38.7 | 3.08 | 39.7 | 3.93 | 43.8 | 4.17 | 16.97 | .01 |
| SCL-Class Membership | 45.7 | 2.73 | 44.7 | 2.88 | 46.7 | 3.78 | .78 | NS |
| VDC-Major Score | 17.1 | 5.30 | 17.4 | 5.60 | 22.9 | 7.26 | 5.73 | .05 |
| VDC-Occupation Score | 17.9 | 6.71 | 17.3 | 4.00 | 23.0 | 3.34 | 4.95 | .05 |
| VDC-Total Score | 35.0 | 11.54 | 34.4 | 9.09 | 45.9 | 10.05 | 7.89 | .05 |
| Attitude Toward Women Scale | 104.5 | 21.55 | 105.5 | 22.05 | 108.1 | 20.74 | .74 | NS |